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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,260	09/06/2004	Ling-Chen Chang	LITP0028USA	5259

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EXAMINER
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TRAN, THANG V

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/711,260	<b>Applicant(s)</b> CHANG, LING-CHEN	
	<b>Examiner</b> Thang V. Tran	<b>Art Unit</b> 2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 and 12-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsui (US 5,748,580).

Regarding claim 1, see Figs. 7-9 of Matsui which disclose an optical pick-up head comprising: an optical lens set (101) for focusing a laser beam onto an optical disc (see column see Fig. 1); an actuator (see Figs. 8 and 9) for fine-tuning the optical lens set comprising: a first tracking coil set (107, 108) mounted on a first side of the optical lens set; a second tracking coil set (tracking 109 and another tracking coil which is not shown) mounted on a second side of the optical lens set; a first permanent magnet comprising at least two magnetic areas each comprising a different magnetic pole from the adjacent magnetic areas facing the first side of the optical lens and disposed at a distance (see magnets 111a, 112a, 113a, 114a); and a second permanent magnet comprising at least two magnetic areas each comprising a different magnetic pole from the adjacent magnetic areas facing the second side of the optical lens and disposed at a distance (see magnets 111b, 112b, 113b, 114b).

Regarding claim 2, see Fig. 8 and 9 which further include a focusing coil (103, 104, 105, 106) mounted on the optical lens set, wherein a magnetic area of the first permanent magnet faces the optical lens set with the same magnetic pole as a corresponding magnetic area of the second permanent magnet faces the optical lens set (see the magnets shown in Figs. 8 and 9).

Regarding claim 3, see coil 103 or 104 as a first focusing coil mounted on a first side of the optical lens set, and see coil 105 or 106 as a second focusing coil mounted on a second side of the optical lens set.

Regarding claim 4, see the magnets shown in Figs. 8 and 9 for limitations a magnetic area of the first permanent magnet faces the optical lens set with the same magnetic pole as a corresponding magnetic area of the second permanent magnet faces the optical lens set.

Regarding claim 5, see the magnets shown in Figs. 8 and 9 for limitations of a magnetic area of the first permanent magnet faces the optical lens set with a different magnetic pole as a corresponding magnetic area of the second permanent magnet faces the optical lens set.

Regarding claim 6, see Figs. 8 and 9 which show the first tracking coil set comprises a tracking coil (107) and the first permanent magnet comprises two magnetic areas (111a, 113a), a first magnetic area (111a) with magnetic field coverage corresponding to an outer part of the tracking coil and a second magnetic area (113a) with magnetic field coverage corresponding to the other part of the tracking coil.

Regarding claim 7, see Figs. 7-9 which show the second tracking coil set comprises a tracking coil (109) and the second permanent magnet comprises two magnetic areas, a third magnetic area (111b) with magnetic field coverage corresponding to an outer part of the tracking coil and a third magnetic area (113b) with magnetic field coverage corresponding to the other part of the tracking coil.

Regarding claim 8, see Figs. 8 and 9 which show the first tracking coil set comprises two tracking coils (107, 108) and the first permanent magnet comprises two magnetic areas, a first magnetic area (111a, 113a) with magnetic field coverage corresponding to an outer part of a

Art Unit: 2627

first tracking coil and a second magnetic area (112a, 114a) with magnetic field coverage corresponding to an inner part of the first tracking coil and an inner part of a second tracking coil.

Regarding claim 9, see Figs. 7-9 which show the second tracking coil set comprises two tracking coils (coil 109 and another not shown tracking coil) and the second permanent magnet comprises two magnetic areas, a third magnetic area (111b, 113b) with magnetic field coverage corresponding to an outer part of a third tracking coil (109) and a fourth magnetic area (112b, 113b) with magnetic field coverage corresponding to an inner part of the third tracking coil and an inner part of a fourth tracking coil (another not shown tracking coil).

Regarding claim 12 and 13, see 12 or 13 as an example which shows the optical pick-up head further comprises a laser diode for emitting a laser beam onto the optical disc through the optical lens set and a photo detector for receiving a reflected laser beam from the optical disc through the optical lens set.

Regarding claim 14, see the rejection applied to claim 1.

Regarding claim 15, see coils and magnets in Fig. 8 or 9 which shows the coil set comprises a coil and the permanent magnet comprises two magnetic areas, a first magnetic area with magnetic field coverage corresponding to an outer part of the coil, and second magnetic area with magnetic field coverage corresponding to the other part of the coil.

Regarding claim 16, see coils and magnets in Fig. 8 or 9 which shows the coil set comprises two coils and the permanent magnet comprises three magnetic areas, a first magnetic area with magnetic field coverage corresponding to an outer part of a first coil, second magnetic area with magnetic field coverage corresponding to an inner part of the first coil and an inner

part of a second coil, and third magnetic areas with magnetic fields covering an outer part of the second coil.

Regarding claim 17, see coils in Fig. 8 or 9 which shows the coil set is a tracking coil set for fine-tuning the optical lens set.

Regarding claims 18 and 19, see Fig. 12 or 13 as an example which shows the optical pick-up head further comprises a laser diode for emitting a laser beam onto the optical disc through the optical lens set and a photo detector for receiving a reflected laser beam from the optical disc through the optical lens set.

3. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Simpson et al. (US 5,986,983).

Regarding claim 1, see Figs. 2-5 of Simpson et al which disclose an optical pick-up head comprising: an optical lens set (12) for focusing a laser beam onto an optical disc (see column 3, lines 20-26); an actuator (see Figs. 2-5) for fine-tuning the optical lens set comprising: a first tracking coil set (38) mounted on a first side of the optical lens set; a second tracking coil set (38) mounted on a second side of the optical lens set; a first permanent magnet comprising at least two magnetic areas (44, 46) each comprising a different magnetic pole from the adjacent magnetic areas facing the first side of the optical lens and disposed at a distance; and a second permanent magnet comprising at least two magnetic areas (44, 46) each comprising a different magnetic pole from the adjacent magnetic areas facing the second side of the optical lens and disposed at a distance(see Figs. 3-4 for further details).

Regarding claims 2 and 3, see coils 38 which are also used as focusing coils mounted on the lens set (12) as recited in these claims.

Regarding claims 4 and 5, see magnets 44 and 46 shown in Figs. 3-4F.

Regarding claim 6, see Figs. 3-5 which show the first tracking coil set comprises a tracking coil (38) and the first permanent magnet comprises two magnetic areas (44, 46), a first magnetic area (46) with magnetic field coverage corresponding to an outer part of the tracking coil and a second magnetic area (44) with magnetic field coverage corresponding to the other part of the tracking coil.

Regarding claim 7, see Figs. 3-5 which show the second tracking coil set comprises a tracking coil (38) and the second permanent magnet comprises two magnetic areas, a third magnetic area (46) with magnetic field coverage corresponding to an outer part of the tracking coil and a fourth magnetic area (46) with magnetic field coverage corresponding to the other part of the tracking coil.

Regarding claim 8, see Figs. 3-5 which show the first tracking coil set comprises two tracking coils (38) and the first permanent magnet comprises two magnetic areas, a first magnetic area (46) with magnetic field coverage corresponding to an outer part of a first tracking coil and a second magnetic area (44) with magnetic field coverage corresponding to an inner part of the first tracking coil and an inner part of a second tracking coil.

Regarding claim 9, see Figs. 3-5 which show the second tracking coil set comprises two tracking coils (38) and the second permanent magnet comprises two magnetic areas, a third magnetic area (46) with magnetic field coverage corresponding to an outer part of a third tracking coil (38) and a fourth magnetic area (44) with magnetic field coverage corresponding to an inner part of the third tracking coil and an inner part of a fourth tracking coil (38).

Regarding claims 10-11, tracking coils (38) and the first permanent magnet comprising three magnetic areas as shown in Fig. 4D or 4E for both sides of the objective lens (12) for limitations in these claims.

Regarding claim 12 and 13, see column 5, line 52 to column 6, line 14 for limitations of the optical pick-up head further comprises a laser diode for emitting a laser beam onto the optical disc through the optical lens set and a photo detector for receiving a reflected laser beam from the optical disc through the optical lens set.

Regarding claim 14, see the rejection applied to claim 1.

Regarding claim 15, see coils and magnets in Figs. 3-5 which shows the coil set comprises a coil 938) and the permanent magnet comprises two magnetic areas, a first magnetic area (46) with magnetic field coverage corresponding to an outer part of the coil, and second magnetic area (44) with magnetic field coverage corresponding to the other part of the coil.

Regarding claim 16, see coils and magnets in Figs. 3-5 which shows the coil set comprises two coils (38) and the permanent magnet comprises three magnetic areas (see Fig. 4D or 4E), a first magnetic area with magnetic field coverage corresponding to an outer part of a first coil, second magnetic area with magnetic field coverage corresponding to an inner part of the first coil and an inner part of a second coil, and third magnetic areas with magnetic fields covering an outer part of the second coil (see Fig. 4D or 4E).

Regarding claim 17, see coils in Figs. 3-5 that shows the coil set is a tracking coil set for fine-tuning the optical lens set.

Regarding claims 18 and 19, see column 5, line 52 to column 6, line 14 for limitations of the optical pick-up head further comprises a laser diode for emitting a laser beam onto the optical



Art Unit: 2627

disc through the optical lens set and a photo detector for receiving a reflected laser beam from the optical disc through the optical lens set.

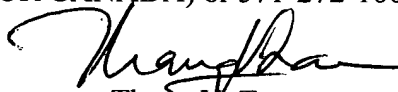
***Cited References***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references relate to an apparatus having at least two tracking coils and two set of magnets mounted to an objective lens to perform a tracking/focusing control.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thang V. Tran whose telephone number is (571) 272-7595. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Hoa can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thang V. Tran  
Primary Examiner  
Art Unit 2627